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Q2 11. (Amended Once) The apparatus of claim 10 wherein said memory stores said body impedance data comprised of known body impedances.

12. (Amended Once) The apparatus of claim 11 wherein said known body impedances include estimated impedances.

13. (Amended Once) The apparatus of claim 11 wherein said known body impedances include calculated impedance measurements.

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Please add the following new claims 17- 19 as follows:

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Q3 -- 17. (New) An apparatus for measuring current flow through a living body, comprising:

data acquisition circuitry comprising a first contact and a second contact configured to generate voltage data from a living body; and

a data processing unit electrically connected to said data acquisition circuitry, wherein said data processing unit comprises a memory configured to store generic body impedance data and to calculate a current flow through said living body using said voltage data and said generic body impedance data.

18. (New) The apparatus of claim 17, wherein said data processing unit further comprises:

at least two channels electrically connected to said first and second contacts, respectively, wherein each of said channels comprises a low noise filter, a high pass filter, a low pass filter, an adjustable threshold detector and an analog to digital converter;

a system bus electrically connected to said channels;

a central processing unit electrically connected to said system bus; and

wherein said memory is electrically connected to said system bus and comprises a set of executable programs.

19. (New) The apparatus of claim 18, further comprising:

an LCD display electrically connected to said data processing unit;

a removable memory capable of being electrically connected to said data processing unit; and

an autonomous power supply.--

Q3